



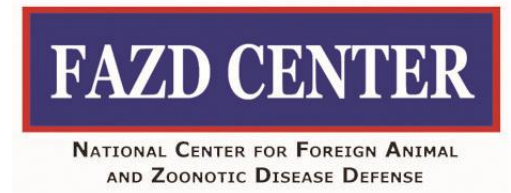
Foreign Animal and Zoonotic Disease Defense Center, Industry Partners Address Emerging Disease

The Department of Homeland Security's Center of Excellence in Foreign Animal and Zoonotic Disease Defense Center (FAZD Center) has initiated a project with industry partners (a major Biologics company and Caliber Biotherapeutics) to develop a vaccine for the newly emerging Schmallenberg virus (SBV).

SBV is an emerging virus, which has caused significant livestock losses throughout Europe, most notably in small ruminants. Traditional vaccines for emerging diseases can take 18 months to two years to bring to the market, and the British Veterinary Association has already indicated that Europe "[doesn't] have that extra time with Schmallenberg—it is already here" [Farmer's Weekly, 02 02 2012].

The FAZD Center, in partnership with a major Biologics company and Caliber Biotherapeutics (a Texas-based company) is working to develop a vaccine within an accelerated timeframe using a new plant-based technology. The plant-based platform is designed to be uniquely agile and responsive, enabling accelerated development of a safe, efficacious vaccine. This proof of principle project is designed to demonstrate the capability and capacity of how this core-technology could be utilized in rapid response programs for new and emerging diseases of both animal and public health significance. At the same time, if successful, this program will deliver, on an accelerated timeframe, an efficacious vaccine for this new devastating virus.

Tracking disease outbreak data is critical to understanding SBV and will aid in rapid development of effective countermeasures. Since December 2011, the DHS National Biosurveillance Integration Center (NBIC) has utilized the FAZD-developed Biosurveillance Common Operating Picture (BCOP) in tracking emergence of SBV across northern Europe. Given the symptomatic similarity to diseases that are endemic in the United States (*e.g.*, Cache Valley virus), up-to-date analysis of European outbreak monitoring efforts, such as those being conducted by the UK Department for the Environment and Rural Affairs (DEFRA) International Disease Monitoring (IDM) team, is critical to US preparedness. NBIC utilizes BCOP as an effective and efficient visual analytics tool to collate multiple layers of data regarding spreading diagnosis of SBV for dissemination of data across US government (USG) interagency forums.



Caliber Biotherapeutics is a fully integrated pharmaceutical company dedicated to delivering new, more effective vaccines and biotherapeutics for cancer, infectious diseases, and other human afflictions. By leveraging modular production technologies and multiple development systems (plants, cells, and microbes), Caliber is pioneering new treatments with increased safety and effectiveness, while reducing both costs and development time. Headquartered in Bryan/College Station, Texas, Caliber has assembled a world-class team of physicians and scientists who have established the world's largest plant-made pharmaceutical facility to uniquely respond to urgent patient needs—from global pandemics to individualized therapy for cancer.

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